WHAT IS CLAIMED IS:

1. A data switch comprising an input port, an output port and a memory coupled therebetween, characterized in that the data switch generates a discard processing indicator for a packet received on the input port, segments the packet into ones of units, and appends the discard processing indicator to the ones of units, further characterized in that the data switch compares the discard processing indicator appended to the ones of units with a discard criterion to determine whether to discard the ones of units.

2. The data switch of claim 1, wherein the discard processing indicator is a random number.

3. The data switch of claim 1 further characterized in that the data switch stores the ones of units in the memory if the units are determined not to be discarded.

4. The data switch of claim 1 further characterized in that the discard criterion is dynamically selected in accordance with a utilization level of an output queue to which the ones of units are destined.

5. The data switch of claim 4 further characterized in that the data switch appends a timestamp to the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

6. The data switch of claim 1, wherein the ones of units are units of a fixed length.

7. A data switch comprising:

an input port generating a tag including a discard processing indicator for appending to ones of input units segmented from an input data packet;

an output port including one or more output queues, each output queue storing an output unit;

a switch fabric operative between the input port and the output port, the switch fabric including a congestion controller retrieving a level of utilization of an output queue to which a particular input unit is destined and selecting the input unit for discard or not based on the discard processing indicator in the tag appended to the input unit.

8. The data switch of claim 7 wherein the switch fabric includes a memory storing non-discarded units for forwarding to the output port.

9. The data switch of claim 7, wherein the congestion controller compares the discard processing indicator with a discard criterion selected in accordance with the utilization level of the output queue.

10. The data switch of claim 7, wherein the utilization level of the output queue is selected based on a timestamp included in the tag.

11. The data switch of claim 7, wherein the discard processing indicator is a random number.

12. The data switch of claim 7, wherein the output port transmits to the switch fabric congestion status updates

including queue utilization levels for the one or more output queues.

13. A method for congestion control in a data switch including an input port, an output port, and a memory coupled therebetween, the method comprising:

generating a number for a packet received on the input port;

segmenting the packet into ones of units;

appending the number to the ones of units; and

individually comparing the number appended to the ones of units with a discard criterion for determining whether to discard the packet.

14. The method of claim 13, wherein the number is a random number.

15. The method of claim 13 further comprising storing the ones of units in the memory if the units are determined not to be discarded.

16. The method of claim 13, further comprising selecting a discard criterion in accordance with a utilization level of an output queue to which the ones of units are destined.

17. The method of claim 16 further comprising the step of appending a timestamp to the ones of units for determining a utilization level of the output queue at a time indicated by the timestamp.

18. A method for congestion control in a data switch, the method comprising:

generating a tag including a discard processing indicator;

appending the tag with the discard processing indicator to each unit segmented from an input data packet;

determining a level of utilization of an output queue to which a particular unit of the input data packet is destined;

determining a discard criterion in accordance with the determined level of utilization; and

discarding the particular unit based on a conformance of the discard processing indicator in the tag appended to the particular unit with the discard criterion.

19. The method of claim 18, wherein the determining of the level of utilization of the output queue comprises selecting a level of utilization for the output queue based on a timestamp included in the tag appended to the particular unit.

20. The method of claim 18, wherein the discard processing indicator is a random number.

21. The method of claim 18 further comprising transmitting to the switch fabric congestion status updates including a queue utilization level of the output queue.

22. A data switch comprising an input port, an output port and a memory coupled therebetween, characterized in that the data switch generates a uniform discard processing indicator for a packet received on the input port, segments the packet into ones of units, and appends the uniform discard processing indicator to the ones of units, further characterized in that the data switch compares for each of the ones of the units the uniform discard processing indicator appended thereto with a

uniform discard criterion for ensuring that the ones of units receive a uniform discard decision.